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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/674,773 | 09/30/2003 | Victor C. Li | UOM 0286 PUS | 4443 |
| 22045 | 7590 | 08/04/2006 | EXAMINER | |
| BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075 | | | MARCANTONI, PAUL D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1755 | |

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,773

Applicant(s)

LI ET AL.

Examiner

Paul Marcantoni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The applicants' amendment and response of 6/8/06 has been considered but is not persuasive. The applicants' amendment canceling claims 1-23 and adding new claims 24-42 necessitated the following grounds of rejection below:

35 USC 112 First Paragraph and 35 USC 132 New Matter:

Claims 24-42 are rejected under the first paragraph of 35 USC 112 and 35 USC 132 as the specification as originally filed does not provide support for the invention as is now originally claimed.

The terms previously claimed as "other than calcium aluminate cement" which was found in now canceled claim 1 is still new matter in newly presented claim 24 which also claims "other than calcium aluminate cement".

The applicants addition of new claim 24 with the limitation of d) that the superplasticizer is present in the amount of "0.1 weight percent to 10 weight percent" is new matter. Applicants have literal support only for a range of superplasticizer of from -- 0.1 weight percent to about 10 weight percent--. Note that this is not a suggestion to applicants but only an observation of the present state of the newly added claims as to why this new claim 24 contains new matter for the d) superplasticizer component.

35 USC 112 Second Paragraph: (WITHDRAWN)

All rejections under 35 USC 112 second paragraph have been withdrawn.

35 USC 103:

Claims 24-42 are rejected under 35 USC 103(a) as obvious over Baeuml et al. '607 B2, , Kanda et al. (JP 2002193653-abstract only), O'Connell et al. '602 or '039, Blounts '650, Zimmerman (DE 2703342-abstract only), Ding (CN 1137051-abstract only), or Hatschek et al. (DE 2816457-abstract only) alone or in view of Aadnoy et al. and Papadakis

Note: Kodama et al. (JP 2001220188-abstract only) has been withdrawn.

Response:

35 USC 112 and 132-New Matter

Applicants argue that on page 7, lines 4-7, for the purposes of the present invention, "calcium aluminate is *not included in the definition of hydraulically setting cements*. They thus conclude that hydraulically setting cements are other than calcium aluminate cement and it is not new matter. The examiner disagrees. First, applicants do have a right to be their own lexicographer to define terms to the extent that they are not repugnant to terms that are conventionally accepted in the art. The applicants definition is improper and unacceptable because it is repugnant and contradicts the meaning of "hydraulic cement" that is accepted within the art. *Calcium aluminate cements are most certainly hydraulic cements and thus they meet the proper definition of hydraulic cement*. It is improper to redefine a term that is accepted in the art. Further, applicants do not have literal support for *hydraulic cement other than calcium aluminate cement*". In fact, applicants state that their hydraulic cement may be any type conventionally used... (p.6, lines 22-26). Calcium aluminate is a specific type of

conventionally used hydraulic cement. The new matter rejection thus remains and is proper.

35 USC 103:

Applicants argue that Beauml does not teach the use of any non-Newtonian additive as defined by claims. The examiner disagrees. Applicants' claimed "non-Newtonian" additive is not limited to only calcium aluminate but can also include an organic polymer (see p.7 of applicants' specification) which is inclusive of polystyrene, polyethylene and polypropylene (p.7, line 22, applicants' specification). Thus, the applicants "non-Newtonian additive" can be simply a polyethylene fiber (in addition to the added polyvinyl alcohol fibers since Beauml teaches "at least one fiber component" in claim 6 of col.6) Further Beauml also teaches "styrofoam balls" in claim 8 which is polystyrene additive and thus a non-Newtonian additive. Claim 24 does not require the presence of calcium aluminate (an inorganic non-Newtonian additive) so the organic non-Newtonian additive can simply be a polymer. Applicants should note that conventional additives to cement such as those listed in claim 9 of Beauml are also polymers that can meet the definition of an organic polymer and thus be a non-Newtonian additive.

The applicants also argue intended use (for steel corrosion prevention) yet the new use of a known composition is not a patentable distinction. The applicants also argue that their invention achieved a four fold increase versus the comparative examples that only had Portland cement. Yet, applicants argue features not present in

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their independent claim 24. Where is the presence of Portland cement in claim 24? It is improper for applicants to read the limitations of the specification into the claims and they cannot obtain the benefit of unexpected results if their claims are not commensurate in scope with those values in the specification (such as their Example 1 which requires both Portland cement and calcium aluminate). There is no Portland cement in claim 24 so any comparison cannot be made with respect to Portland cement.

The applicants argue the intended use for Kanda does not teach whether fibers only reinforce or produce strain hardening behavior. In rebuttal, applicants preferred fiber of component a) of claim 24 is "polyvinyl alcohol" though not claimed (from specification) and Kanda teaches also polyvinyl alcohol fibres. The properties of Kanda's fiber will be the same as applicants because it's the same fiber. Applicants next state that there is no teaching that Kanda's polyvinyl alcohol fibers meet the "interfacial chemical bonding range". It is the examiner's position that one of ordinary skill in the art would expect this limitation met especially since Kanda teaches adding polyvinyl fibers in overlapping amounts to the fibers amounts claimed by applicants in claim 24. The applicants also note that their polyvinyl fibers are oiled to reduce matrix interaction. In rebuttal, a review of claim 24 indicates no limitation regarding polyvinyl alcohol fibers (there is no limitation to polyvinyl alcohol fibers in claim 24 either) or any other fiber being oiled.

The applicants argue intended use again for now O'Connell yet the new use of a known composition is not a patentable distinction. The applicants allege that

O'Connell does not teach their claimed range of 0.1 to 4 vol.% fibers. In rebuttal, the examiner disagrees. O'Connell teaches an amount of polyolefin fibres such as polyethylene fibers (col.1, lines 50-51) in the amounts of 1.5 to 25 wt% (see claim 3, col.6) and thus the fact that the range overlaps then so do the properties. The applicants also make an assumption without the basis of support stating that it appears that his fibers are "low density polyethylene fibers". In rebuttal, O'Connell teaches no such thing. It can be more proper to assume that the fact O'Connell broadly claims polyethylene fibres that this fiber is inclusive of all types of polyethylene fibers (including both low and high density types).

The applicants also argue that O'Connell does not teach a non-Newtonian additive. The examiner disagrees because "polyethylene fibres" are non-Newtonian fibers. Fibers are additives. The applicants are referred to their own definition of "polymer non-Newtonian additives that include polyethylene additives (See p.7, line 21 of applicants' specification). Applicants claim 24 does not require an inorganic non-Newtonian additive such as calcium aluminate so thus "polyethylene fiber" meets the limitations for both reinforcing fiber a) and b) non-Newtonian additive (organic Non-Newtonian additive such as organic polymer).

The applicants argue Blounts does not teach non-Newtonian additive. The examiner disagrees for the same reasons as above because polyethylene fibers are taught by Blounts and they are both a reinforcing fiber according to the a) component of applicants' claim 24 and the b) component as a non-Newtonian

additive. The applicants assume that Blounts is limited to low density polyethylene because they allege it is the more common type. The examiner disagrees because a reference is good for all that it realistically teaches and nowhere does Blount state he limits his invention to low density polyethylene fiber. It is the examiner's position that Blount's polyethylene fiber is inclusive of all types of polyethylene fibers including low and high density type.

Zimmerman teaches polyethylene fibers and does not limit his invention to any specific type of polyethylene fiber so it is inclusive of both low and high density forms of polyethylene. Thus, it is inclusive of both applicants' reinforcing fibre and organic (polymeric) non-Newtonian additive.

The applicants argue that Ding does not teach their claimed fibre and its limitations. In rebuttal, Ding teaches polyethylene fiber which is inclusive of all variety of polyethylene fibers (Ding does not limit his fibre type) and thus it meets applicants' claimed fiber of high modulus polyethylene.

The applicants argue that Hatschek teaches polyethylene fibers but not the specific high modulus type of their invention. In rebuttal, a reference is good for all that it realistically teaches and is Hatschek broadly teaches polyethylene fibers it means its inclusive of all polyethylene fibers of low or high modulus. Thus, it meets applicants' claimed high modulus polyethylene fiber. Also, applicants argue there is no non-Newtonian additive. Again, applicants are referred to their own specification wherein it teaches that polyethylene additive

(ie polyethylene fiber is an additive) is an organic non-Newtonian additive (p.7, line 18 applicants' specification).

The examiner has addressed fully applicants remarks and the finality of this office action is now proper. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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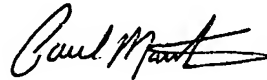
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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Paul Marcantoni", with a stylized flourish at the end.

Paul Marcantoni
Primary Examiner
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